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## **6 CONTINGENCY RESPONSE ACTIONS**

This section describes potential response actions that will be undertaken if monitoring results indicate the long-term performance standards identified in Section 1.2 are not being achieved.

There are four potential issues with the long-term integrity of the removal action that would warrant an evaluation of response actions, including:

- Significant erosion, sloughing or instability of the backfill material
- Recontamination within the RAB from Facility releases
- Erosion or instability of the shoreline containment area
- Earthquake of 100 recurrence interval or greater

Potential response actions for each of these scenarios are discussed below.

### **6.1 Significant Erosion, Sloughing, or Instability of the Backfill Material**

If significant signs of erosion, sloughing, or significant downslope movement of the backfill material are observed, a geotechnical engineer will assess the slope configuration to determine the severity of the instability and whether ongoing failures are likely. If additional slope stabilization measures are deemed necessary, cost-effective alternatives will be discussed with EPA.

Note that the primary objective of any response action will be to correct sloughing or slope instability concerns. The complete vertical and lateral extents of total PCB RvAL exceedances and other co-located chemical exceedances will be removed so the backfill material is not designed to perform as a chemical isolation layer.

### **6.2 Recontamination within the RAB from Facility Releases**

It is expected that surface sediment COC concentrations within the RAB will increase over time from the post-construction baseline as chemical concentrations approach equilibrium with ongoing off-site source loadings in the LDW. As described in Sections 4 and 5, samples will be collected both within the RAB and in the adjacent areas within the LDW (see the

three monitoring areas shown Figure 3) to document whether the surface sediment concentration increases in the RAB are sourced from the Facility versus off-site LDW-wide sources. If the data suggest increased surface sediment concentrations above the applicable EPA-approved risk based concentrations are due to Facility releases, the following sequence of contingency response actions will be initiated:

- An additional round of sediment testing will be conducted immediately to confirm the results. The sediment testing locations may be revised from those identified in Figure 3 to target potential release areas. If recontamination from Facility sources is not confirmed, monitoring will resume according to the regular OMMP schedule.
- If recontamination from Facility sources is also identified during the confirmation testing, the Owner and EPA, in coordination with Ecology, will review the data, in particular the nature and magnitude of the exceedance, and agree on an appropriate path forward. The path forward may include one or more of the following:
  - Sampling of the Facility stormwater discharge following treatment and discharge into the LDW
  - Increased frequency of sediment monitoring
  - Use of additional field measurements (e.g., bioassays, fish tissue samples) to evaluate site-specific risk
  - Application of a thin sand cover layer to the affected area
  - Upland source tracing and environmental monitoring to isolate and identify the source of contamination
  - Evaluation of additional cost-effective source control measures, potentially including enhanced or additional best management practices (BMPs), engineering or operational controls

### **6.3 Erosion or Instability of the Shoreline Bank Area**

If the shoreline bank is determined to be unstable or is undergoing significant erosion such that it compromises the integrity of the shoreline containment, the following sequence of contingency actions will be initiated:

- Delineate the extent of the containment reduction
- Determine the cause of the instability
- Address the instability based on the findings. Measures to improve the stability of the

shoreline containment may include:

- Regrading of the slope
- Placement of a toe buttress
- Increasing the gradation and/or thickness of the riprap layer

If response actions are warranted, it may be necessary to monitor this area more frequently to observe the effectiveness of any shoreline repairs, to better understand the causative processes, and to quickly identify new areas of erosion if any should develop.

#### **6.4 Earthquake of 100-Year Recurrence Interval or Greater**

If an earthquake occurs with a 100-year recurrence interval or greater, the long-term monitoring procedures described in Section 3, 4, and 5 will determine whether significant erosion, sloughing, or instability of the backfill material occurred; whether Facility releases occurred that could have the potential to recontaminate the RAB; and, whether erosion or instability of the shoreline containment area may have occurred and potentially compromised the integrity of the shoreline containment. If any of the above conditions exist, the potential response actions identified in Sections 6.1, 6.2, and 6.3 will be triggered.